The author forms a Preface of his address to the Medical Association on the occasion of the Widney bust unveiling on May 11, 1937, as duly reported in CALIFORNIA AND WESTERN MEDICINE, and offers the already attracted reader both "A Personal Word," as an item or two of autobiography, and "A Retrospect," recounting how, when surgeon in the United States Army, 1867-1869, doing field duty in Indian-infested Arizona, he first began, in the deathless quiet of the desert, his saddle for a pillow and constantly exposed to peril, to find answers to questions he had been asking himself since boyhood. There he learned how primitive men lived, and there he found the key that unlocked the years so long gone. "From the man of the desert, from the lines of the emigrant wagons and their needs, I read the laws of ages ago." Discussing the discovery of fire, as part of the family history of civilization, this early California pioneer says: "The use of flint and steel was still common among the Spanish of the old Mission days after I came among them in 1868. Matches were a luxury, and were not wasted." And he then tells what he knew of evidences of the Cliff Dwellers in Arizona and New Mexico, and their clever use of fire.

Coming to discuss "civilizations which seem to be dying," the author pays especial attention to the Italy of the twentieth century, with a pointed remark about the so-called Dictator of the Mediterranean. "It is this land," he says, "in which, after fifteen centuries, Mussolini is trying to rebuild the old Roman Empire. But he has to work with a people from whom the old Latin blood is largely gone. The Italy of today belongs among the decadent bloods of earth's dying and dead. Can Mussolini succeed? Time will show; but the odds are against him." The writer also turns his spotlight on "The Latin Sisters: Italy and Spain," asking if the Italy of Virgil, Livy, and Marcus Aurelius, and the law of military supremacy can live again? "Italy is united in name, but is starving, and Mussolini's efforts in Tunisia are a struggle for food." So he believes that "the causes of Spain's decline and death were of her own making, and in her madness she is destroying herself."

Part II, or the second half of Doctor Widney's book of very suggestive essays, is devoted to reflections on "The Rebuilding of a Wrecked Civilization," a chapter of particular interest being that which portrays "The Strong Man," and pictures his coming again. Mussolini, trained in war, is trying to rehabilitate Italy, and there is Hitler, with the "Greater Dual Alliance," while Stalin is welding Russia together. There may be a healing of the nations, but there are serious problems which the world still has to face. The sick world, indeed, needs diagnosis, and a prompt one at that, and then a speedy follow-up, to reach all the sources of infection. P. W.

PRURITUS: A SUGGESTION

The subject of pruritus, especially perianal, always has been an unhappy one, because the medical profession has been able to do so little for it except when a very specific cause could be found, such as the types definitely caused by fungus. Everything in the book has been recommended as a cure. Once in a while we find x-ray treatment of value, but more often not.

Because we noted, some years ago, that the patients who were urged to wash the parts thoroughly with soap and water after a bowel movement were improved or cured, a superficial irritation of the skin was thought to be the cause; and for this reason, having had such success in the treatment of burns and ulcers on other parts of the skin with the use of 1 per cent watery solution of gentian violet painted on and thoroughly dried, we tried it in the treatment of pruritus.

The parts are thoroughly cleaned and dried, the gentian solution is then painted on and thoroughly dried at the time with our connection with compressed air. Fanning probably would do as well. This should be used every day for a while, then three times a week if necessary. It will be found that there is a decided improvement, if the method is properly used as above described.

We offer this for trial by the profession because we have had such a signal success in a few cases.

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HEAT-REGULATING EFFICIENCY AND IMMUNITY

This current tendency to ignore specific serum components, and to study microbic infections from a broad physiologic point of view, is well illustrated in recent studies by Dr. Arthur Locke[1] of the Western Pennsylvania Hospital, Pittsburgh, Pennsylvania. The Pennsylvania bacteriologist studied the relation between the heat-producing and heat-regulating mechanisms of rabbits, and their resistance to experimental pneumococcus infections. To determine heat-regulating and heat-producing efficiency, Doctor Locke chilled his stock rabbits by partial immersion in cold water until the rectal temperature had been reduced to approximately 95° F. The rabbits were than dried to fluffiness with absorbent cloths. The rate of rectal temperature recovery was then determined. In his most efficient rabbits, a 3° restoration of rectal temperature was accomplished within twenty minutes. These animals were assigned an arbitrary "fitness rating" of one (100 per cent). Rabbits requiring forty minutes for a similar restoration of temperature were given rating of 0.5; those requiring as long as 125 minutes, a rating of 0.16 (20/125). Doctor Locke found that fitness rating thus calculated is fairly constant under routine laboratory conditions, maximum discrepancies on retests being in the neighborhood of 10 per cent.

For his first immunologic tests, Doctor Locke selected twelve Class A rabbits (*i. e.*, animals

1 Locke, Arthur, J. Infect. Dis., 60: 106 (Jan.-Feb.), 1937.

whose "fitness rating" was over 0.6), and eleven Class C rabbits (rating below 0.5). Each rabbit was given an intravenous injection with from six to eighty-three highly-virulent type one pneumococci per c.c. of calculated blood volume. Blood cultures, (pour plates), were made at the end of thirty minutes, one hour and three hours to determine the rate of disappearance of the pneumococcus from the circulation. All rabbits of Class A accomplished this sterilization of the blood stream within thirty to sixty minutes, even after intravenous doses as high as eighty-three microörganisms per c.c., while 92 per cent of the rabbits of this class showed no fever or other demonstrable symptoms. All recovered from the infection. Class C rabbits, in contrast, were not able to accomplish removal of pneumococci from the circulation, even when the intravenous dose was reduced to six microörganisms per c.c. All Class C rabbits died within three days of pneumococcic septicemia. Class B rabbits occupied an intermediate position, some of them showing a complete removal of pneumococci from the blood stream by the end of sixty minutes; 69 per cent of them recovered from the infection.

Doctor Locke's second series consisted of sixteen Class A, nineteen Class B, and sixteen Class C rabbits. Each animal of this series was injected intradermally with 800 to 2,000 highly-virulent type one pneumococci. Penetration of the pneumococci from the intradermal focus into the blood stream was estimated from pour plates made at the end of twenty-six hours. Some 69 per cent of his Class A rabbits yielded practically negative blood cultures at this time, and 44 per cent of Class A recovered from the infection, while 93 per cent of Class C rabbits showed a blood count of 2,000 or more pneumococci per c.c. at the end of twenty-six hours. All Class C animals died from the resulting generalized infection. Group B occupied an intermediate position, 21 per cent showing 2,000 or more circulating pneumococcus per cc. at the end of twenty-six hours, and 89 per cent of them dying from pneumococcus septicemia.

Doctor Locke then studied environmental and therapeutic factor-causing fluctuations in his "fitness rating," and natural resistance. Transfer to quarters, kept at 20° F. higher temperature than the routine animal rooms, was followed by a 30 per cent fall in fitness rating. Proportionate improvements in fitness were observed as a result of transfer to 20° F. cooler quarters. Morphin administered in doses sufficient to inhibit shivering depressed fitness rating. Smaller doses were without demonstrable effects. Marked depression in rating was observed following withdrawal of food, but no continuing impairment in rating till the resulting weight loss was increased to 2.5 per cent per day.

Occasional improvement in fitness rating was observed following subcutaneous injection with "antuitrin." Marked improvements followed intravenous injection with "cortin." Daily feeding with liver extract prepared for treatment of pernicious anemia (or an intravenous injection with this extract), led in all cases to improvement in fitness rating. Control intravenous injections with peptone, heparin, or normal horse serum gave negative results.

Therapeutic improvement in fitness rating, however, conferred ability to survive experimental pneumococcus infection only when treatment was continued for a sufficient length of time to lift the fitness rating above the "critical level," 0.6. Doctor Locke found that his "critical level" varied with the pneumococcus strain tested. Rabbits infected intradermally, with relatively nonvirulent "type V" pneumococci for example, successfully resisted septicemic invasion if their fitness level was above 0.3.

In order to determine probable clinical applications of his efficiency gradiant, Doctor Locke measured the oxygen consumption per square meter of body surface of sixty-eight individuals during maximum effort with arms and legs on a machine resembling a stationary bicycle. Oxygen consumption varied from 410 to 1,500 c.c. per minute per square meter of body surface. Relative fitness was calculated by arbitrarily assigning a fitness rating of one (100 per cent), to the highest figure (1,500 c.c.). Thus, a person consuming 410 cc. per minute would have a calculated rating of 410/1500 or 0.27. The sixty-eight persons thus classified were asked to report the number of colds they had had during the observational period of seven months; eighteen persons with fitness rating above 0.6 reported one cold or less during this period, and nine persons with fitness ratings below 0.5 reported four colds or more during the same period of time.

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IS BREAST FEEDING ALWAYS BEST?

In every discussion of infant feeding, we are invariably greeted with the trite statement: "Mother's milk is the best infant food." This has been preached so often that it has come to be regarded as gospel. Yet, like all gospel, it is subject to interpretation.

What is really meant is that a good grade of mother's milk is the ideal infant food. Unfortunately, however, not all mother's milk is good, by far.

In fact, the present-day upper-class mother in this country, while an excellent baby producer, is generally, a poor milk producer.

Pediatricians agree that successful breast feeding is rapidly becoming a rarity, especially in private practice. Just why healthy women cannot lactate defies explanation. Many who are most eager and best circumstanced fizzle after the first few weeks, despite the most sincere effort.

And, old adages to the contrary, this is not to the detriment of the babies, for today average artificially fed babies, under proper care, do equally as well as breast-fed, if not better. In fact, in cases where a desperate nerve-wracking effort is being made to augment a deficient supply, the baby is the chief sufferer. (Prematures are not referred to here; for them, all effort must be made to secure high-grade breast milk. But even in those cases, their own mothers seldom can be utilized as the source.)